# THE HARBOR DISTRICT TODAY

The modern history of the Harbor District is one of continual transformation. From its early days as a rice marsh to its shipping heyday in the 1850's to the industrial and post-industrial landscapes of today, the area has been shaped - literally and figuratively - by humans and economic activity. Typical of areas surrounding a port, the neighborhoods in and around the Harbor District have also seen waves of immigrants and changing populations, from the Kaszubes of Jones Island to the Hispanic and Hmong communities of today's near south side.

## **Land Use**

#### **Historic Land Use**

Both the land and waterways comprising today's Harbor District were originally part of a vast marsh, stretching inland through the Menomonee Valley as far as Miller Park Baseball Stadium. The marsh, rich in fish, birds, and game of all sorts, was an attraction first to Native American communities and then to the fur trappers who traded with them.

Jones Island, today a peninsula, was once a marshy barrier island between the Milwaukee and Kinnickinnic Rivers and Lake Michigan. Prior to European immigration the Harbor District and surrounding areas were home to a number of Native

American villages that hunted, fished, and harvested wild rice from the wetlands that filled most of the estuary. The original mouth of the Harbor was located in the middle of present day Jones Island across from what today is the east end of Greenfield Avenue. In the 1850s a new harbor mouth was constructed in the current location and the original harbor mouth was allowed to fill in over time.

In the 1870s a fishing village was established on the west side of Jones Island by an ethnic group from northern Poland known as the Kaszubes. Around the same time a large steel mill was established on the southern end of Jones Island

next to the present day Bay View neighborhood.

Starting in the mid-1800s the wetlands of the inner harbor were filled in to create land for a variety of factories and warehouses. In the mid and late-1800s and into the first decades of the 1900s, the Harbor District provided access to a number of rail lines, easy access to ships coming up the rivers and a large labor pool in the dense neighborhoods that sprouted up near the District. This mix of ingredients made the Harbor District a focal point of early industrial Milwaukee. The western Harbor District and the Walker's Point neighborhood were home to tanneries, breweries, steel mills

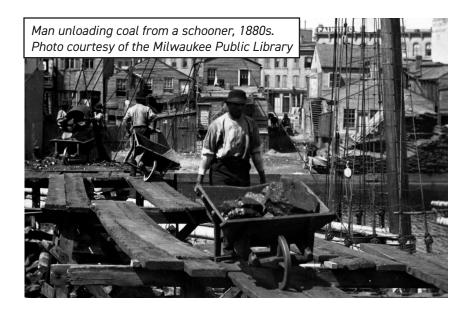
and many other industries that fueled Milwaukee's growth.

Many of Milwaukee's most famous companies - including Harnischfeger, Allen-Bradley,

Nordberg, and A.O. Smith - got their start in the area.

In the 1920s the City of Milwaukee began evicting the Kaszubes from Jones Island as the first sewage treatment facility was constructed on the north end of Jones Island. The marsh and lakebed around Jones Island were filled in over the subsequent decades and the mooring basin at the south end of the Harbor District was dredged out for additional winter ship docking. The added land on Jones Island gave the Port of Milwaukee more capacity for shipping in anticipation of the opening of the St. Lawrence Seaway in 1959, which made Milwaukee an international port.

Beginning in the 1960s, Milwaukee began to see a drop in industrial production. As the Harbor District was built to serve industrial Milwaukee, deindustrialization had an impact on the land uses in area. Properties transitioned to warehousing and storage as factories closed or moved. Fewer rail rail lines were needed as transportation shifted towards trucks. In the 1980s and 1990s more and more properties became vacant and abandoned.



Looking west from Jones Island across the Inner Harbor, 1938. Photo courtesy of the Milwaukee Public Library.



Looking north from Bay View towards Jones Island and downtown, 1930. Photo courtesy of the Milwaukee Public Library.



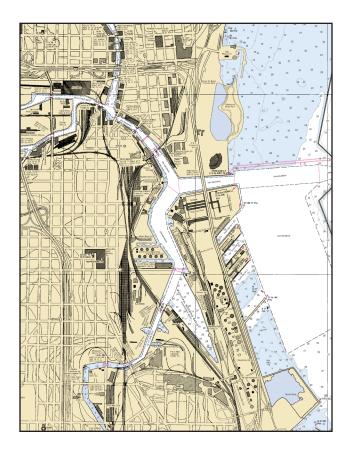




Top left: 1836 map of Milwaukee by Jas. S. Buck and Dr. E. Chase (courtesy of the American Geographical Society Library Collection)

Top right: 1883 map of Milwaukee by Alfred G. Wright (courtesy of the American Geographical Society Library Collection)

Bottom right: 1984 map of the Milwaukee Harbor by the National Oceanic and Atmospheric Administration



#### **Current Land Use**

Detailed descriptions of land uses in each sub-district can be found in chapter 5: Sub-Districts and Corridors.

The Harbor District is approximately 888 acres (excluding street right-of-ways) with nearly half of that land in public ownership. The largest single land use is classified as "transportation and utilities" and takes up approximately 46% of the total area. Industrial and vacant properties are the next most common land uses with the remainder described in the chart below. The taxable value of land and improvements of all nontax exempt properties in the Harbor District averages \$9.16 per square foot, compared to \$5.14 for the City of Milwaukee as a whole.

At the center of the Harbor District is Jones Island, a peninsula extending north from Bay View that separates the inner harbor from the outer harbor. As Jones Island is mostly filled lakebed it falls under the State of Wisconsin's Public Trust Doctrine, which states that the land must be used for public purposes. The peninsula is occupied by Milwaukee Metropolitan Sewerage District and Port Milwaukee.

Waterfront properties in the Harbor District are primarily used for manufacturing, construction and warehousing; commercial; public utilities; or are vacant. No land along the waterfront in the Harbor District is currently in residential use and almost no land is used for public space (parks, recreational, etc.).

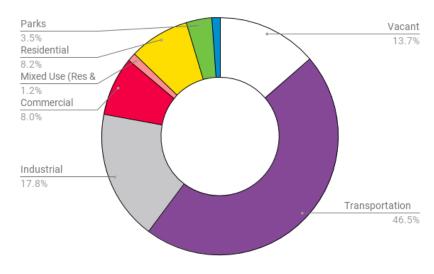
West of the elevated rail viaduct is the South First Street corridor, a true mix of uses with older industrial uses, and former industrial buildings now repurposed as offices and entertainment venues, clustered along the rail viaduct, transitioning to commercial, retail, and some apartments along South First.

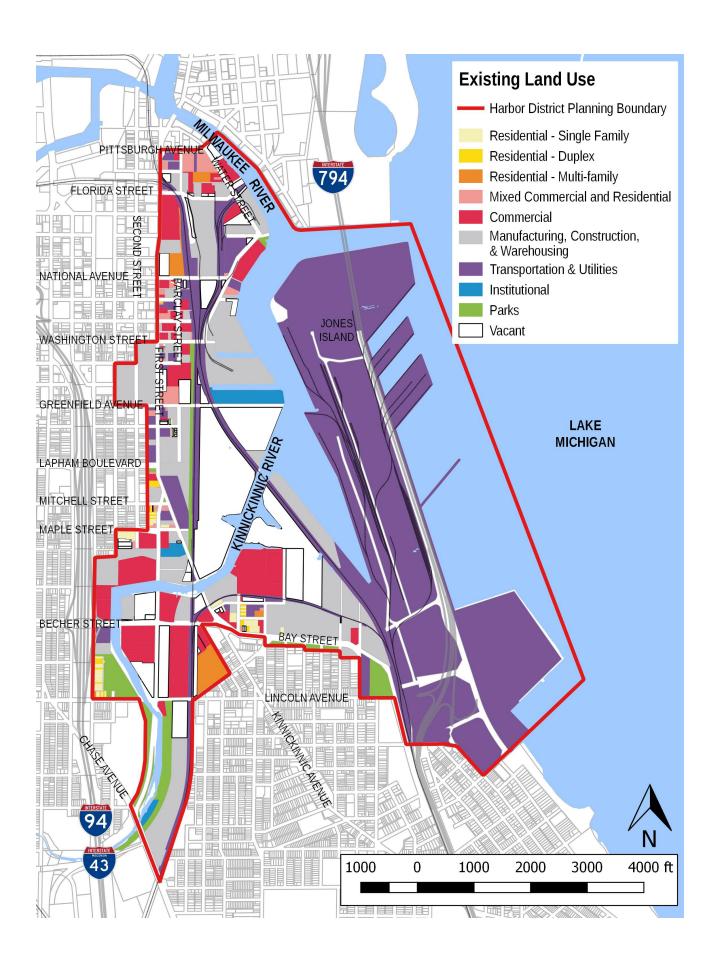
Moving south of the waterfront toward Bay Street, there are a number of manufacturing, construction and warehousing uses. South of Bay Street, the land use mix immediately changes to single-family and duplex residences with commercial and retail uses clustered along South

Kinnickinnic Avenue.

The area along the Kinnickinnic River is mostly manufacturing, construction and warehousing, with some commercial and a few marine-based business which rely on access to the Kinnickinnic River. South of Becher Street the land use on the west side of the Kinnickinnic River is mostly public green space.

#### **Existing Land Use**





# Surrounding Neighborhoods and Uses

The Harbor District's central location in the City of Milwaukee and at the confluence of three rivers. the lake and a number of transportation corridors and networks gives it an outsize, if sometimes unseen, role in the commerce of the city. Conversely, as a place where many edges come together, activities and land uses in surrounding areas and neighborhoods have a substantial impact on the District. As the Harbor District is changing, the surrounding neighborhoods are also experiencing transition that may alter how they impact and interact with the Harbor District in the future.

Immediately north of the Harbor District is the Third Ward neighborhood. The Third Ward was traditionally a warehouse and manufacturing district that reinvented itself in the 1990s and 2000s as a mixed use district of apartments, condominiums, offices, and retail. Many historic buildings have been repurposed and new construction projects have filled in between. East of the Third Ward is the Henry Meier Festival Grounds that is home to Summerfest and a number of other festivals in the summer months. The area is a large traffic generator from

May through September, with weekend crowds filling streets in surrounding neighborhoods and reaching into the Harbor District.

North of the Third Ward and less than a mile from the Harbor District is Downtown Milwaukee. Downtown Milwaukee is the largest employment center in the region and home to most of Milwaukee's local government, civic and cultural institutions. Several interstate highways, many bus lines, and regional train service all meet downtown. Many employees commuting to downtown from the south side of Milwaukee pass through the Harbor District on their way to work.

West of the Harbor District are a collection of neighborhoods that fall under the broad title of the Near South Side. Overlapping with the Harbor District is the Walker's Point neighborhood, which consists of a mix of land uses ranging from manufacturing and warehouses to residential to office and retail. The western portion of Walker's Point includes the Walker Square neighborhood which is primarily single-family and duplex homes with commercial and retail uses clustered along major streets.

Other adjacent Near South Side neighborhoods are Historic Mitchell Street and Lincoln Village. Historic Mitchell Street is a traditional retail and commercial district, home to many small businesses serving the various immigrant communities of the south side of Milwaukee. Lincoln Village is centered along Lincoln Avenue, also a traditional retail and commercial corridor. Between these commercial streets are dense neighborhoods of single-family homes and duplexes with Milwaukee's highest concentration of firstgeneration immigrants and native Spanish speakers.

South of the Harbor District lies the Bay View neighborhood. Bay View is made up of mostly singlefamily and duplex homes with commercial and retail uses clustered around a few main streets, most notably Kinnickinnic Avenue. Bay View's eastern edge along Lake Michigan is almost all public parkland. Bay View's western edge includes some industrial properties near the Kinnickinnic River and following the rail lines and Interstate 43/94 south.

### **Key Activity Generators and Anchors**

The Harbor District has been at the center of Milwaukee's economy for more than 150 years and includes several important establishments, businesses and land uses and facilities with regional impact.

Port of Milwaukee - Port Milwaukee serves as a regional transportation and distribution center with a primary market that includes Wisconsin, northern and western Illinois (including the city of Chicago) and eastern Minnesota including Minneapolis/St. Paul. Port Milwaukee has sixteen berths for vessels, each capable of handling vessels with a seaway maximum draft and length of 1,000'. The Port is served by two class 1 railroads and has direct access to Interstate Highways 43, 94 and 794, positioning it well within the region's existing multimodal freight network. Its location also enables shippers to bypass the congestion and uncertainty of the Chicago area. The Port has approximately 178 acres of land on Jones Island. It operates the municipal Heavy Lift Dock, and leases out the remaining land for use in shipping, warehousing and industrial operations. The Port also has 39 acres on the western side of the Inner Harbor at the 401 East Greenfield Avenue property and the Grand Trunk sites that are available for lease.

A 2010 Economic Impact Study found 624 direct jobs at Port Milwaukee, and roughly 800 indirect or induced jobs. This reflects a decrease from a similar study conducted in 2000, which found 1,119 direct and 909 indirect jobs. Total tonnage shipped through the Port over the last decade has fluctuated around 2,000,000- 3,000,000 tons per year.

Rockwell Automation World Headquarters - Rockwell Automation's world headquarters are home to approximately 3,000 employees in a large campus that covers several blocks on the west side of the Harbor District. The Rockwell campus is a dominant feature of the Harbor District and Walker's Point. The majority of workers at this site are engineers, with the remainder being administrative professionals. Rockwell Automation has an interest in creating a neighborhood surrounding their facilities that helps them attract and retain employees.







University of Wisconsin-Milwaukee School of Freshwater Sciences - The UWM School of Freshwater Sciences (UWM SFS) is located at the east end of Greenfield Avenue in the center of the Harbor District. The building has been home to the Great Lakes Water Institute since the early 1970s and in 2009 UWM established the School of Freshwater Sciences, the only graduate program in the country dedicated to the study of freshwater. In 2014 the school completed a \$53 million addition to the building which has brought additional traffic to the building and area. Approximately 150 people work in the building on a daily basis with many guests visiting for programming and events. UWM SFS faculty and students are engaged in future planning for the Harbor District and hopes are that the University's large investment in the District will spur additional development nearby, potentially complementary development by water oriented companies and organizations.

MMSD Jones Island Water Reclamation Facility - The facility occupies approximately 71 acres on the northern end of Jones Island and is one of two water reclamation facilities operated by the Milwaukee Metropolitan Sewerage District. The facility was built in 1925 and is on the National Register of Historic Places and designated a National Historic Civil Engineering Landmark by the American Society of Civil Engineers. MMSD treats wastewater from 28 communities in the Milwaukee area and during the process produces a byproduct called Milorganite, a fertilizer that has been produced at this site since 1926. Strong odors from the treatment of sewage and production of milorganite are prevalent in the Harbor District and noticed by visitors. MMSD's facilities also have a number of utility lines (sewers, power, gas, etc.) that travel underground across the Harbor District and create challenges for development and construction in the area.

Lake Express Ferry Terminal - The Lake Express Ferry has been providing service for people, bicycles and automobiles between Milwaukee and Muskegon, Michigan since 2004. The vessel makes the trip one-way in 2 hours 30 minutes and can carry 248 passengers and 46 vehicles. The vessel makes three round trips per day in the summer and two round trips per day in spring and fall. The ferry leases space from the Port of Milwaukee on the far southeast corner of the Harbor District.







US Coast Guard Station Milwaukee - The US Coast Guard Station Milwaukee serves as both the local station and as the head station for Sector Lake Michigan. The local station is responsible for marine law enforcement between Port Washington and Wind Point and halfway out into Lake Michigan. Sector Lake Michigan oversees 21 Coast Guard Stations across Lake Michigan.

Rail Viaduct - The western side of the Harbor District is traversed by a heavily trafficked rail viaduct that is raised above the surrounding landscape. The rail and property is owned and operated by Canadian Pacific Railway and provides Class 1 rail service. This rail corridor connects to the Port of Milwaukee via a spur just north of Bay Street on the south end of the Harbor District. Amtrak also uses this track, offering eight daily round trips between Milwaukee and Chicago.

The viaduct has seven bridges that cross over local streets in the Harbor District at varying heights. Most of the bridges are lower than the 13 feet 6 inches maximum allowable height for semi trucks in Wisconsin. These low bridges are an obstacle for many of the properties located east of the viaduct.

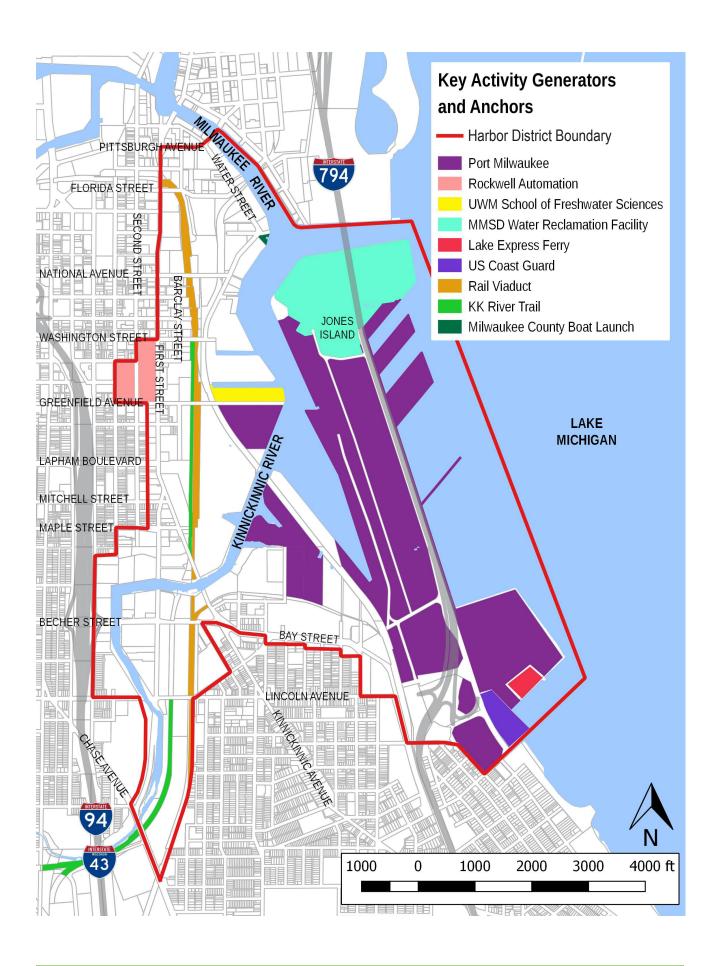
Kinnickinnic River Trail - The KK River Trail is a paved off-street bicycle and pedestrian path constructed in two sections in 2011 and 2012. The southern section begins outside the Harbor District at 6th and Rosedale and follows the Kinnickinnic River northeast to Lincoln Avenue just east of 1st Street. The northern section begins at Maple Street and Kinnickinnic Avenue and follows the Canadian Pacific Rail Viaduct due north to its terminus at Washington Street just east of Barclay Street.

Milwaukee County Boat Launch - The Milwaukee County Boat Launch is located at the intersection of South Water Street and East Bruce Street and is one of four public launches operated by Milwaukee County. The launch is the only location in 9 miles of waterfront within the Harbor District where the public can access the water directly.



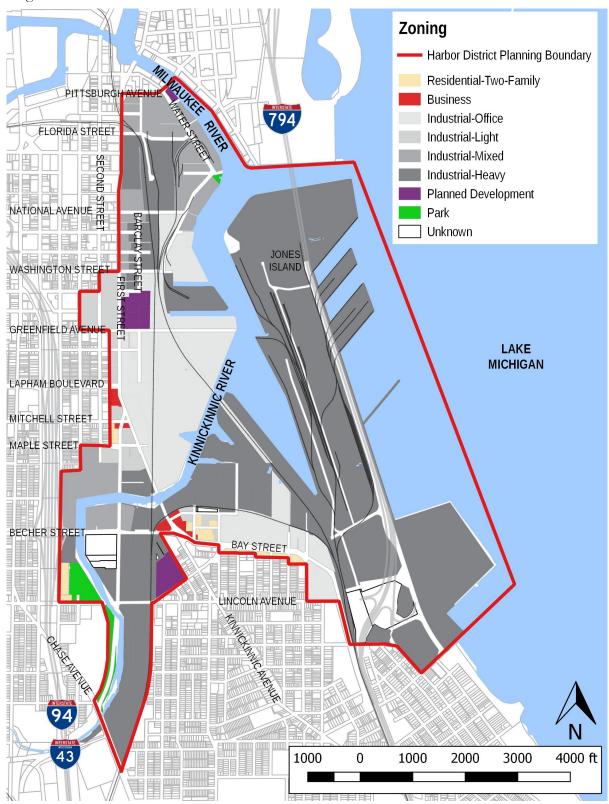


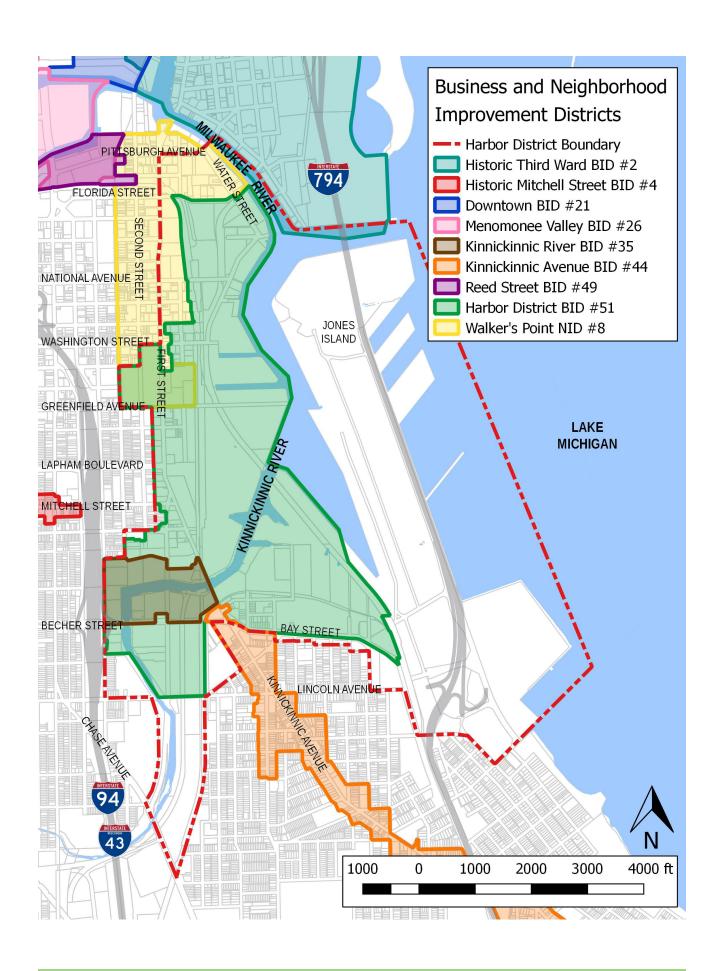




# **Zoning and Regulation**

Current zoning largely reflects the area's industrial and shipping-related past. Certain areas have been rezoned in recent years to assist in gradual transition of older, multi-story warehouse and manufacturing buildings to residential and office uses.





## Workforce

As of 2015, nearly 8,000 people were employed in the Harbor District, with nearly half of those jobs in industrial sectors, and an additional 7% in transportation and warehousing. Nineteen percent of the District's jobs are in Healthcare and Social Assistance. Overall job density in the Harbor District is nine jobs per acre. Less than 11% of the workers in the District live in adjacent neighborhoods.

Workforce characteristics in the three zip codes directly surrounding the Harbor District (53202, 53204 and 53207) were analyzed to compare to the metropolitan area. The "Harbor District Zip Codes" map on page 25 shows the geographies. Each of these three zip codes represents unique neighborhoods within the city, and as such aggregating them together presents challenges. This area includes the Third Ward, East Town and the Lower East Side (53202), a largely white and wealthy area; Bay View and the south side (53207), which is slightly less affluent; and Walker's Point and the near south side (53204), which is very diverse. However, by combining the data, a picture emerges of the overall demographics of the workforce directly available to businesses in the district.

The "Workforce Characteristics" table below and on page 25 highlight key characteristics of the adjacent labor force. Neighborhood characteristics that differ by 4% or greater from the metropolitan area are highlighted in red. Where available, certain values were compared to 2000 data to analyze trends in local labor force demographics. For these values, the change in value between 2000 and 2014 is noted in parentheses following the 2014 value.

#### **Workforce Characteristics**

		Neighborhood		City of Milwaukee	MSA
	53202	53204	53207		
Labor force	18,094	17,575	22,701	296,578	831,557
Unemployed	5% (0%)	16%(+3%)	7% (2%)	25,209 (8.5%)	69,448 (5%)
Occupation					
Management, business, science, arts	60% (+8%)	<b>14%</b> (+4%)	41% (-12%)	30%	38%
Service	19% (+6%)	<mark>32%</mark> (+7%)	18% (+3%)	24%	17%
Sales & Office	<b>19%</b> (-6%)	14% (-2%)	23% (-5%)	23%	25%
Natural resources, construction, maintenance	<mark>2%</mark> (-1%)	<b>11%</b> (+3%)	6% (-2%)	6%	6%
Production, transportation, material moving	<mark>5%</mark> (-1%)	30% (-11%)	12% (-7%)	17%	14%
Education (age 25 and over)					
Less than high school	5%	42%	9%	18%	10%
High school graduate	9%	30%	27%	30%	27%
Some college or associate's degree	20%	19%	29%	29%	30%
Bachelor's degree or higher	66%	9%	36%	29%	33%
Earnings in past 12 months (full-time workers)					
Under \$15,000	5%	18%	5%	7%	4%
\$15,000 to \$24,999	7%	33%	11%	18%	12%
\$25,000 to \$34,999	13%	22%	17%	21%	16%
\$35,000 to \$49,999	24%	14%	26%	23%	22%
\$50,000 to \$74,999	27%	10%	28%	21%	25%
\$75,000 or more	23%	4%	12%	10%	22%
Median earnings (2014 dollars)	\$39,772	\$19,507	\$36,936	\$24.204	\$32,310
	(+\$5 <i>,</i> 428)	(-\$1,702)	(+\$425)	Ş24,2U4	

Differences of more than 4% from the metro area figures are in red; Changes in value from 2000 to 2014 are noted in parenthesis.

#### **Workforce Characteristics (continued)**

	Neighborhood			City of Milwaukee	MSA	
	53202	53204	53207			
Age						
Under 18 years old	3%	35%	21%	27%	24%	
18 to 64 years old	85%	60%	69%	64%	63%	
65 years and older	12%	5%	10%	9%	13%	
Median Age	30.4	27.6	36.1	30.8	37.2	
Commute to work						
Car (alone or with others)	71%	81%	88%	82%	89%	
Public transit, walked, biked, or work from home	28%	17%	11%	17%	11%	
Households paying more than 30% of income in housing costs						
Those making under \$20,000	88%	93%	92%	92%	91%	
Those making \$20,000 to \$49,999	47%	51%	52%	53%	53%	
Those making \$50,000 to \$74,999	23%	10%	20%	18%	23%	
Those making \$75,000 or more	7%	5%	2%	4%	6%	

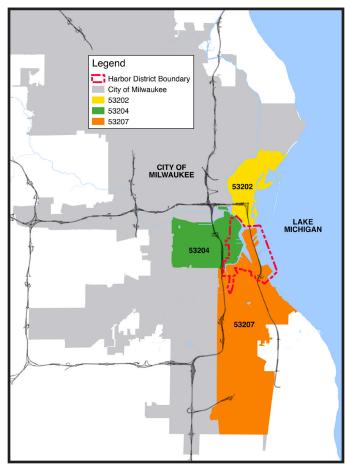
The workforce in the neighborhoods adjacent to the Harbor District is relatively younger, more likely to be unemployed, slightly lower earning, and with a higher proportion of workers lacking a high school diploma when compared to that of the four-county Milwaukee metropolitan statistical area,

Workers in the neighborhoods around the District are more likely to be employed in manufacturing or service jobs than are their peers across the region, but the local workforce's reliance on manufacturing jobs has decreased markedly since 2000. The lowest-earning segment of the workforce in the Harbor District is highly likely to spend more than 30% of its earnings on housing, similar to the comparable class of workers regionwide. This is a key measure of economic stress. Neighborhood workers commute to work by private vehicle at similar rates to workers throughout the region.

Over time, workforce characteristics in the adjacent zip codes have evolved. Salient changes include:

• Unemployment has risen in 53204 and 53207 between the years 2000 and 2014. Unemployment in 53204 remains considerably higher than in the city as a whole or in the other areas adjoining the Harbor District.

#### **Harbor District Zip Codes**



- The proportion of residents engaged in manufacturing work has dropped in all three zip codes.
   Workers in 53204 have seen the largest reduction, and the greatest increase in the proportion of resident workers employed in the service industries.
- Workers in 53204 have seen a reduction in inflation-adjusted earnings between 2000 and 2014. Workers in the other zip codes held level or increased. This reduction in earnings could be related to the shift from manufacturing to service work. Workers in 53204 earn substantially less than their peers in the city as a whole.
- 53202 and 53207 have become younger over the last 15 years, reflecting the relative attractiveness of those neighborhoods to the "millennial" generation. 53204 has aged somewhat in that period, but still remains the youngest zip code of the three, with a median age well below the city and regional medians.

Generally speaking, the workers in 53204 have lost economic ground since the 2000 census. High unemployment rates, low educational attainment and a shift to service employment from relatively higher paying manufacturing work have combined to drive earnings down in real dollars.

As is shown in the "City vs Metro Economic Characteristics" table below, the data for unemployment, household income and poverty all show a large divide between the metro area and the City of Milwaukee. Looking at the "City Economic Characteristics by Race/Ethnictiy" table it is clear that a wider economic gap exists when comparing communities of color in the City of Milwaukee to white residents. These indicators of economic gaps between City and metro area and between various racial and ethnic groups are important to consider when thinking about future development in the Harbor District.

City vs. Metro Economic Characteristics

	City of Milwaukee	Milwaukee Metro
Unemployment Rate	13.1%	8.4%
Median Household Income	\$35,489	\$53,628
Families Below the Poverty Level	25.3%	11.5%

US Census Bureau; American Community Survey;

2010 - 2014 5-Year Estimates

#### City Economic Characteristics by Race/Ethnicity

	White	Hispanic / Latino	African - American
Unemployment Rate	8.1%	12.4%	20.9%
Median Household Income	\$45,591	\$31,910	\$26,067
Families Below the Poverty Level	13.1%	31.5%	37.1%

Figures are for the City of Milwaukee from the US Census Bureau; American Community Survey; 2010 - 2014 5-Year Estimates

# Transportation, Access, and Circulation

# Streets and Highways

The uniform urban street grid that typifies most of the City of Milwaukee is not prevalent in the Harbor District. On the western and southern edges of the District, where the Walker's Point and Bay View neighborhoods connect to the Harbor District, Milwaukee's street grid is largely intact with a hierarchy of smaller residential side streets and larger arterial streets. Upon entering the Harbor District, the large industrial properties, railroads, and waterways break up the street grid and provide limited access along small disconnected streets to the waterfront and Jones Island.

Traffic circulation east of the main railroad viaduct in the Harbor District is disjointed. The only north/south street east of the railroad viaduct is South Water Street, which does not connect south of Washington Street. Greenfield Avenue is a dead end at the waterfront. which means anyone wishing to travel from Greenfield Avenue to anywhere else in the district must travel back through First Street. Access to the Grand Trunk site via street is unclear with one street zig-zagging from Bay Street north towards the property and with several waterfront businesses relying on access via a privately owned

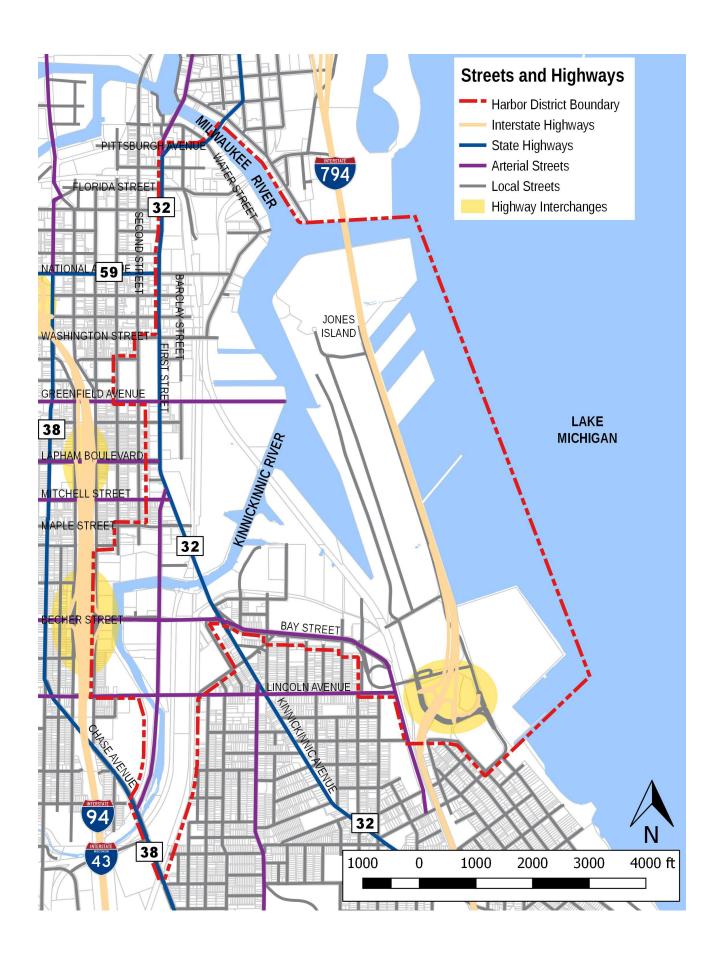


street.

First Street (State Highway 32) is a major north/south travel corridor connecting the Near South Side and Bay View with Downtown Milwaukee. Several major arterial streets and state highways terminate in the Harbor District including National Avenue (State Highway 59), Greenfield Avenue, Lapham Boulevard, Mitchell Street, and Becher/Bay Street.

The Harbor District has good access to several interstate highways. I-794 travels through the District over Jones Island and provides direct access to the Port of Milwaukee. Access to I-43/94 just a few blocks west of the District is available at Becher Street, Lapham Boulevard, and National Avenue. I-794 and the Hoan Bridge connect the south shore of Milwaukee to downtown Milwaukee and interstates 94 and 43. The interstate and bridge provide direct connection to the Port of Milwaukee. The initial phase of construction for I-794, which included the Hoan Bridge and interstate to the south end of Jones Island, was completed in 1972 and opened to traffic in 1977. An extension known as the Lake Parkway was completed in 1999 and extended the interstate south to Bay View, St. Francis, Cudahy and General Mitchell International Airport.

Due to the prevalence of industrial properties, the Port of Milwaukee, and easy interstate access, there is a steady flow of truck traffic in the Harbor District. While semi-trucks from businesses in the District prefer to use the interstate onramps listed previously, semitrucks from businesses east of the railroad viaduct and north of Washington Street travel north through the Third Ward to access the interstate due to bridge height restrictions in the Harbor District.



## **Freight**

The many businesses located in the Harbor District rely on the movement of freight via truck, rail, and boat to get their products and materials in and out. The convergence of all these modes of shipping makes the Harbor District an attractive place for business.

In addition to the highway connections described previously, the Harbor District is also a hub of rail and commercial shipping traffic. Canadian Pacific, Union Pacific, and the City of Milwaukee all operate rail lines in the Harbor District. The Union Pacific and City of Milwaukee rail lines transport freight, while the Canadian Pacific rail lines transport freight as well as passengers via Amtrak service between Milwaukee and Chicago.

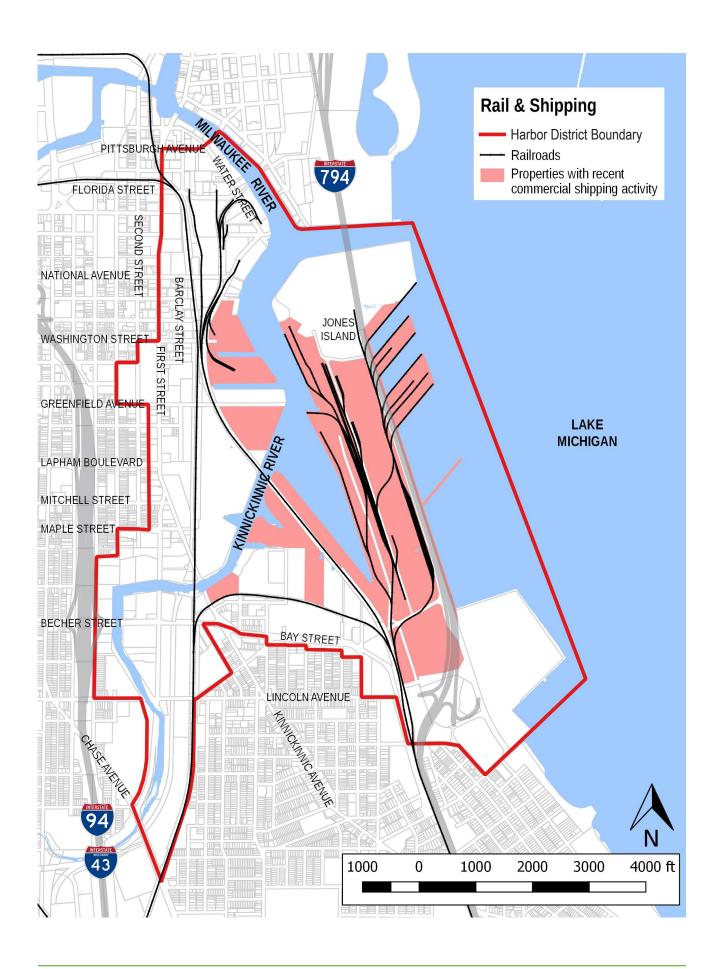
Commercial freight shipping is operated by a variety of companies that lease space from Port Milwaukee, as well as several privately owned waterfront parcels used for commercial shipping of grain, cement, asphalt, and other products. The Port is visited by ocean-going vessels, "lakers" that carry freight within the Great Lakes, and barges that travel the river systems, with Milwaukee as

their northernmost stop. Port Milwaukee is also able to provide over-size and overweight shipping opportunities using existing highway connections and designated over-size over-weight trucking routes that connect the Port to manufacturers around Milwaukee. Port Milwaukee previously offered transmodal shipping service and is exploring opportunities to return that service to Milwaukee.



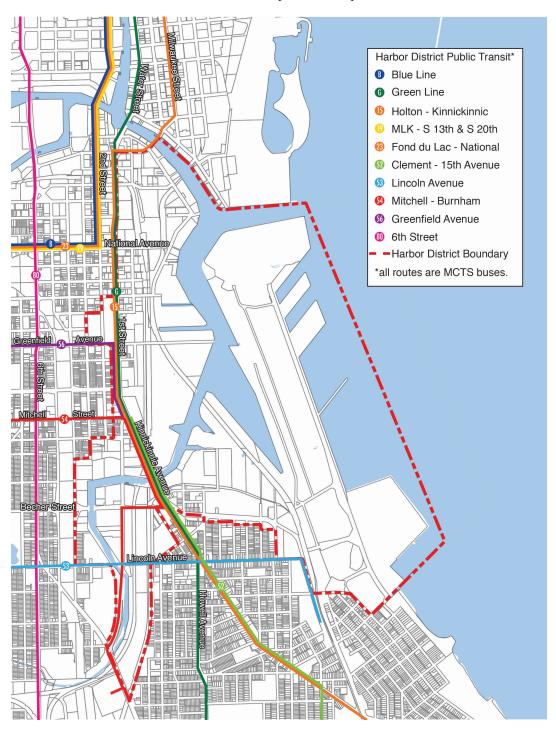






#### **Public Transit**

There are a number of bus lines operated by Milwaukee County Transit Services (MCTS) that travel through and terminate in the Harbor District. The Green Line and route 15 travel along South First Street and connect Bay View to Downtown Milwaukee. Routes 19, 23, and the Blue Line all travel along Second Street from National Avenue headed north towards Downtown Milwaukee. Routes 58, 54, and 17 all travel east/west across the south side of Milwaukee and terminate at the MCTS Operating Station located at First and Mitchell Streets. Early planning for Bus Rapid Transit and the Milwaukee Streetcar identifies the First and Second Street corridors for potential expansion routes.



# Bicycle and Pedestrian

Bicycle travel to and through the District has improved in recent years, but can be challenging depending on a cyclist's route and experience level. South Second Street, with bicycle lanes on each side of the street, is the preferred north/ south bicycle route through the District, but many bicyclists travelling between Bay View and Downtown Milwaukee still travel on heavily-trafficked South First Street.

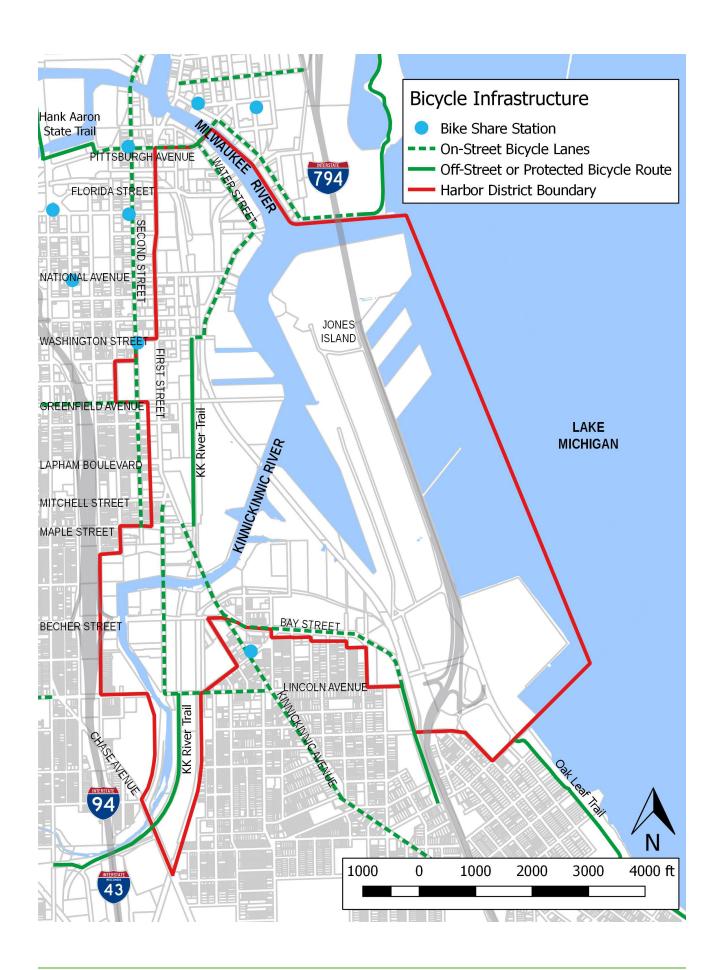
South Water Street between Washington and Pittsburgh Streets has bike lanes in each direction, but also at-grade railroads in the street that provide a challenge to bicycles. South of Washington Street bicyclists can travel on the Kinnickinnic River Trail, which was constructed in two sections in 2012. The Kinnickinnic River Trail is an off-street paved bicycle and pedestrian path that travels along the railroad viaduct from Washington Street south to Maple Street. The southern section begins at South First Street and the Kinnickinnic River and follows the river south to 6th and Rosedale Street outside the Harbor District. South First Street between Maple Street and Lincoln Avenue has bike lanes in each direction to connect the two portions of the Kinnickinnic River Trail.

Pedestrian traffic within the Harbor District is light with the exception of the Walker's Point neighborhood. First and Second Streets north of Greenfield Avenue see some heavier pedestrian traffic with people visiting the various shops and businesses and/or travelling between bus stops and connections. The large industrial or vacant parcels

combined with the disjointed street grid east of South First Street leads to very little pedestrian traffic in most of the Harbor District. There are also some streets in the District without sidewalks on one side including portions of South Water Street, South Barclay Street and Marina Drive.







# Water Edge Conditions

The defining feature of the Harbor District is the water that flows through the Milwaukee and Kinnickinnic Rivers and empties into Lake Michigan. Within the District there are 9 miles of waterfront that serve different uses and are in different conditions. Most of the District's waterfront has been hardened with wood, steel or concrete over the past 150 years to serve industrial, port, and flood control purposes. While the hardened shorelines are necessary for these purposes, vertical dock walls are the least conducive shoreline type for aquatic habitat.

As most of the Harbor District was historically marsh and wetland, the majority of water edge areas were filled in to create a hard shoreline for port and industrial uses. The materials used for fill over the years has varied in type and quality. The combination of poorly filled in soils with marshy subsoils leads to poor soil quality across the Harbor District. New construction projects in the area frequently face challenges with constructing foundations and engineers are generally nervous about removing or altering existing dockwalls for the fear that filled soils will slide back into waterways.

In addition to poor soil quality in the District, decades of industrial activity has left behind a legacy of contamination in the soils and waterways. Construction near the water edge must take into account how activities may disturb

and/or distribute residual contaminants.



Timber dockwall at the east end of Greenfield Avenue, with a concrete sewer outfall on the left and sheet metal dockwall on the right.





Sheet metal dockwall at the Milwaukee County Boat Launch on the left and concrete capped dockwall on the right.